

Serial No. 10/798,954 Mikhail ARL 00-43

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-13 (canceled)

14. (new) An anti-armor projectile comprising:

a main body having a front end portion and a rear end portion;

a tail fin boom having a first end connected to stabilizing fins, a second end connected to the rear end portion of the main body, and a central hole formed in the tail fin boom;

a rod shaped warhead disposed in the central hole and having a front end portion and a rear end portion provided with a non-circular cross-section rear-step; and

restraining means for holding the warhead in a fixed position relative to the main body during flight and prior to impact comprising the rear-step of the warhead engaging a conforming surface on the tail fin boom to prevent spin-slipping movement of the warhead relative to the tail fin boom.

15. (new) The anti-armor projectile of claim 14, further comprising:

a warhead located in the main body, wherein the main body warhead is selected from the group of a chemical energy warhead (CE) and a multipurpose projectile (MP).

16. (new) The anti-armor projectile of claim 15, wherein the restraining means further comprises a threaded connection of threads provided in the tail fin boom and a threaded screwing nut which

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engages the threads and the front end portion of the warhead for holding the warhead in the central hole to prevent axial movement of the warhead relative to the tail fin boom during flight

17. (new) The anti-armor projectile of claim 16, further comprising:

release means for releasing the warhead from the tail fin boom upon impact wherein the threaded connection comprises destructible threads in the tail fin boom and the threaded screwing nut that shear off upon impact to release the warhead from the tail fin boom.

18. (new) The anti-armor projectile of claim 15, wherein the warhead comprises high-density material selected from the group of tungsten and depleted uranium.

19. (new) The anti-armor projectile of claim 14, wherein the restraining means further comprises a threaded connection of threads provided in the tail fin boom and a threaded screwing nut which engages the threads and the front end portion of the warhead for holding the warhead in the central hole to prevent axial movement of the warhead relative to the tail fin boom during flight

20. (new) The anti-armor projectile of claim 19, further comprising:

release means for releasing the warhead from the tail fin boom upon impact wherein the threaded connection comprises destructible threads in the tail fin boom and the threaded screwing nut that shear off upon impact to release the warhead from the tail fin boom.

21. (new) The anti-armor projectile of claim 16, further comprising:

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release means for releasing the warhead from the tail fin boom upon impact wherein the threaded connection comprises destructible threads in the tail fin boom and the threaded screwing nut that shear off upon impact to release the warhead from the tail fin boom.

22. (new) The anti-armor projectile of claim 14, wherein the warhead comprises high-density material selected from the group of tungsten and depleted uranium.

23. (new) An anti-armor projectile comprising:

a main body having a front end portion and a rear end portion;

a tail fin boom having a first end connected to stabilizing fins, a second end connected to the rear end portion of the main body, and a central hole formed in the tail fin boom;

a rod shaped warhead having a front end portion, a rear end portion, and the warhead is disposed in the central hole of the tail fin boom; and

restraining means for holding the warhead in a fixed position relative to the tail fin boom during flight and prior to impact, the restraining means comprising destructible threaded connection of restraining threads provided in the tail fin boom and a threaded screwing nut which engages the restraining threads and the front end portion of the warhead to hold the warhead in the central hole to prevent axial movement of the warhead relative to the tail fin boom during flight and upon impact the destructible threaded connection fails and the warhead is released from the tail fin boom.

24. (new) The anti-armor projectile of claim 23, further comprising:

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a warhead a located in the main body, wherein the main body warhead is selected from the group of a chemical energy warhead (CE) and a multipurpose projectile (MP).

25. (new) An anti-armor projectile comprising:

a main body having a front end portion and a rear end portion, and a first warhead attached to the main body;

a tail fin boom having a front end connected to the rear end portion of the main body and a rear end connected to stabilizing fins, the tail fin boom having an inner hollow area closed at the front end and open at the rear end;

a second warhead comprising a kinetic energy penetrator disposed in the hollow area; and

a restraining means connected to the tail fin boom and the second warhead for holding the second warhead in a fixed position during flight and for releasing the second warhead from the tail fin boom when the projectile impacts a target.

26. (new) The anti-armor projectile of claim 25, wherein the warhead is selected from the group of a chemical energy warhead (CE) and a multipurpose projectile (MP).

27. (new) An armor penetrating tandem projectile comprising:

a main body containing a warhead selected from the group of a chemical energy warhead (CE) and a multipurpose projectile (MP), and the main body a having front end portion and a rear end portion;

a tail fin boom having a first end connected to stabilizing fins, a second end connected to the rear end portion of the main body; and a long central hole formed in the tail fin boom;

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a second warhead disposed in the central hole of the tail fin boom; and
restraining means connected to the tail fin boom and the second warhead for holding the second warhead in a fixed position relative to the tail fin boom during flight and prior to impact.

28. (new) The armor penetrating tandem projectile of claim 27, wherein the second warhead comprises a rod shaped, kinetic-energy penetrator.

29. (new) The armor penetrating tandem projectile of claim 27, wherein the second warhead comprises an elongated kinetic energy penetrator selected from the group of tungsten and depleted uranium.

30. (new) The armor penetrating tandem projectile of claim 27, further comprising a release means disposed in the tail fin boom to release the second warhead upon impact.

31. (new) The armor penetrating tandem projectile of claim 27, wherein the second warhead comprises an elongated rod shaped penetrator and the restraining means comprises a rear-step non-circular cross section formed in a rear end of the penetrator which engages a conforming surface in the central hole of the tail fin boom to prevent spin-slipping movement of the penetrator relative to the tail fin boom.

32 (new) The armor penetrating tandem projectile of claim 31 wherein the restraining means further comprises restraining threads provided in the central hole of the tail fin boom and a

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screwing nut means functioning to hold the warhead inside the central hole to prevent axial movement of the penetrator relative to the tail fin boom during flight.

33. (new) The armor penetrating tandem projectile of claim 32, wherein the restraining threads and the screwing nut means fail upon impact to release the penetrator from the tail fin boom.